

# [BEAMSPLITTER UTILIZING A PERIODIC DIELECTRIC STRUCTURE]

## Abstract

An optical device having a photonic crystal structure is provided. The photonic crystal structure includes a plurality of rods/holes, a plurality of light input ports, a plurality of light output ports, a light path; and a defect of rod/hole located in the light path. The photonic crystal structure of the optical device can be optimized to adjust the powers of the lights of the output ports, and thus the output powers having identical intensities can also be achieved. When a plurality of lights is launched via the input ports, the powers and the phases of the lights of the output ports can also be optimized.